

# STAFFORD COUNTY SCHOOL BOARD

## Agenda Consideration

**TOPIC:** School Construction Cost & Efficiency (Value Engineering)

**ITEM NO.:** 9G

**PREPARED BY:** Scott Horan  
Executive Director  
Planning & Construction

**MEETING:** August 24, 2004  
**ACTION DATE:** N/A

Andre' A. Nougaret,   
Assistant Superintendent  
for Support Services

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**ACTION REQUESTED BY THE SUPERINTENDENT:** It is requested that the School Board provide direction in relation to implementation of value engineering studies.

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### KEY POINTS:

\*All cost information was obtained from the Virginia Department of Education; cost data does not include design cost or site cost. Cost data reflect the cost of the school at the time of contract award and does not include change orders that may have been associated with the project during the construction period.

#### 1. Elementary School Construction

- Past:
  - The following information provides elementary school construction award cost for school construction contracts awarded in 2000 - 2001 in Stafford and surrounding counties. It should be noted that Stafford Elementary School (Barrett ES) cost is below state and surrounding counties average.

<u>Award Date</u>	<u>County</u>	<u>Building Cost</u>	<u>Building Square Ft</u>	<u>Cost/SF</u>
Jun; 2001	Stafford VA	8,162,853	87,700	\$93.08
Mar; 2001	Prince William VA	8,144,655	83,084	\$98.03
Mar; 2001	Loudoun VA	8,204,500	77,033	\$106.48
Mar; 2001	Loudoun VA	8,457,500	83,990	\$100.70
Region	Average (00-01)	32,969,508	331,807	\$99.36
State	Average (00-01)			\$94.26

- Current:
  - The following information provides elementary school construction award cost for schools built in the last 18 months in Stafford and surrounding counties. It should be noted that Stafford Elementary School (Brent ES) cost is above the state and surrounding counties average.

<u>Award Date</u>	<u>County</u>	<u>Building Cost</u>	<u>Building Square Ft</u>	<u>Cost/SF</u>
Jul, 2004	Loudoun VA	10,070,000	90,050	\$111.8
Jul, 2004	Loudoun VA	9,949,000	90,050	\$110.5
Mar, 2004	Prince William VA	8,383,000	83,000	\$101.00
Mar, 2004	Prince William VA	9,439,500	89,900	\$105.00
Sep, 2003	Loudoun VA	7,944,947	84,142	\$94.42
Jul, 2003	Stafford VA	10,313,391	87,700	\$117.60
Jul, 2003	Loudoun VA	7,778,120	84,142	\$92.44
May, 2003	King George VA	10,070,100	102,838	\$97.92
Mar, 2003	Prince William VA	7,663,193	76,724	\$99.88
Mar, 2003	Prince William VA	7,415,560	71,245	\$104.09
Mar, 2003	Prince William VA	<u>8,049,795</u>	<u>83,084</u>	<u>\$96.89</u>
Regional	Average (Mar 03 – Aug 04)	97,076,606	942,875	\$102.9
State	Average (02 - 03)			\$96.6

## 2. Middle School Construction

- Past:
  - The following information provides middle school construction award cost for school construction contracts awarded in 2000 - 2001 in Stafford and surrounding counties. It should be noted that Stafford Middle School (T. Benton Gayle) construction cost is below state and surrounding counties average.

<u>Award Date</u>	<u>County</u>	<u>Building Cost</u>	<u>Building Square Ft</u>	<u>Cost/SF</u>
Nov, 00	Stafford VA	13,616,500	146,756	\$92.78
Aug, 00	Prince William VA	14,346,000	135,309	\$106.02
Jun, 01	Loudoun VA	16,926,000	158,341	\$106.90
Aug, 00	Loudoun VA	16,162,000	158,341	\$102.07
Nov, 00	Fairfax VA	<u>21,115,000</u>	<u>178,723</u>	<u>\$118.41</u>
Regional	Average (00 - 01)	82,165,500	777,470	\$105.70
State	Average (00 - 01)			\$99.46

- Current:

- The following information provides middle school construction cost for schools built in the last 18 months in surrounding counties.

<u>Award Date</u>	<u>County</u>	<u>Building Cost</u>	<u>Building Square Ft</u>	<u>Cost/SF</u>
Mar; 2004	Prince William VA	14,057,550	135,000	\$104.13
Feb; 2004	Arlington VA	24,864,000	204,000	\$122.00
Mar; 2003	Fauquier VA	10,662,669	115,215	\$92.55
Regional	Average (00 – 01)	49,584,219	454,215	\$109.1
State	Average (00 – 01)			\$97.9

### 3. High School Construction

- Past:

- The following information provides high school construction award cost for school construction contracts awarded in 2000 - 2001 surrounding counties.

<u>Award Date</u>	<u>County</u>	<u>Building Cost</u>	<u>Building Square Ft</u>	<u>Cost/SF</u>
Sept; 00	Loudoun VA	28,606,931	246,968	115.8
May; 01	Loudoun VA	29,076,610	245,703	118.3
Regional	Average (00 – 01)	57,683,541	492,671	\$117.1
State	Average (00 – 01)			\$111.7

- Current:

- The following information provides high school construction cost for schools awarded in the last 14 months in Stafford and surrounding counties. Cost does not include site work.

<u>Award Date</u>	<u>County</u>	<u>Building Cost</u>	<u>Building Square Ft</u>	<u>Cost/SF</u>
Oct; 2003	Loudoun VA	26,435,000	251,915	\$104.94
Aug; 2003	Loudoun VA	29,375,000	251,915	\$116.61
Jul; 2003	Stafford VA	30,166,880	254,414	\$118.57
Jun; 2003	Fairfax VA	50,236,339	380,000	\$132.20
Regional	Average	136,213,219	1,138,244	\$119.60



#### 4. Value Engineering

- In an effort to further implement cost efficiencies in our school designs, the option of pursuing third party (independent of designer and contractor) Value Engineering reviews remains a viable management tool.
- Value Engineering process consist of specific reviews, including cost estimating and analysis, with the goal of getting the most value out of the project. In other words, it aims to reduce costs without sacrificing important elements of our educational specifications for each school prototype design. The Value Engineering process is conducted using basic phases: Goal Definition, Information Gathering, Functional Analysis, Recommendations/Proposal and Follow-up or tracking of recommendations. When an independent value engineering firm is conducting the review, the design team is included as well as key school administrative staff and other critical stakeholders.
- Stafford County Public School's Elementary, Middle and High School prototype designs have been built numerous times over the last 10 years. Each time a school is built the design is improved. Inherit to this process is some level of value engineering, however not nearly the level an independent value engineering effort would provide. We estimate the cost for a Value Engineering Study for each school prototype to be roughly \$30K - \$35K.

**SCHOOL BOARD GOAL: #5** – Provide facilities that promote student learning and and community support.

**#7** – Provide school environments where teachers are safe to teach and students are safe to learn

**FUNDING SOURCE:** N/A

**AUTHORIZATION REFERENCE:** N/A